Our Coast Our Future: A decision support system for assessing the vulnerability of California shorelines to climate change

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Our coastlines are vulnerable to future change?
21st Century Projections for North-Central California

**SLR (National Research Council)**
- 28 cm of sea level rise by 2050 (range 12-61 cm)
- 92 cm of sea level rise by 2100 (range 42-166 cm)
- includes global and regional effects

**Waves**
- Slight decreases to no significant change in wave height

**El Niño**
- More frequent extreme events
- Water level increase by 20-30 cm
- Doubling of winter erosion
WELCOME

Our Coast, Our Future (OCOF) is a collaborative, user-driven project focused on providing coastal California resource managers and land use planners locally relevant, online maps and tools to help understand, visualize, and anticipate vulnerabilities to sea level rise and storms.

Expanding Across California

OCOF now covers the outer coast from Half Moon Bay north to Point Arena. It will include Southern California by late 2016. Please send us any comments you have...

Get Started Now >>

If you are new to OCOF, check out our Get Started page to understand more about this project and how to effectively use the data and tools in your work.

Explore Flood Map >>

Explore the potential for flooding in your area. >>

Find out who is using OCOF near you. >>

Learn more about our project. >>
Collaboration at its best

Models & methods

Collaboration & web tool

Stakeholder engagement

http://ourcoastourfuture.org
If we build it, will they come?
Stakeholder engagement process

Pre-web tool development

Coastal Manager Scoping Workshops

Technical advisory committees

Targeted trainings with agency staff

Integration support

Technical assistance trainings

User surveys

Post-web tool development

Adaptation for next phase
Stakeholder engagement early is critical

- **Understand**
  - Related management questions
  - Planning actions underway or being considered
  - Planning processes and how to best design and integrate a decision support tool

- **Audience**
  - Jurisdiction and legal authority along the CA coast

- **Critical User Requirement**
  - Must use best available science
What stakeholders wanted:

- Provide projections used to anticipate impacts on facilities and resources
- Expedite ID of impacts so that discussion can focus on response and long term solutions
What stakeholders wanted

- Coastal erosion (when, where, what does it affect?)
- Incorporate adaptation scenarios
What stakeholders wanted

Ability to generate a report on chosen area
What stakeholders wanted:

Make the underlying data (LIDAR, GIS, etc) available
What stakeholders wanted:
Promote a sea level rise estimate that everyone agrees to use.
What stakeholders wanted

Addresses data/model uncertainty
What stakeholders wanted:

Develop a collaborative process between managers and scientists to “do useful science that gets applied”

NOAA Fisheries & Sonoma County Water Agency
*Fisheries Management (Russian River NOAA Habitat Blueprint)*

CalTrans
*Infrastructure Vulnerability*

City of Redwood City
Capitol Corridor JPA
National Park Service – GGNRA
City of Alameda
City of San Rafael

Sonoma County
*SLR Vulnerability Assessment LCP Update*

Marin County
*City Climate Action Plans SLR Vulnerability Assessments LCP Update*

San Mateo County
*SLR Vulnerability Assessment*

City of Half Moon Bay
*SLR Vulnerability Assessment General Plan and LCP Update*

UC Berkeley
*SF Bay Adaptation Alameda City Council*

Santa Clara County
*Silicon Valley 2.0*
Our approach and resulting tools are continuing to adapt as we learn more and gain user/stakeholder feedback.
Will we adapt to these changes and if so, how?
Acknowledgements

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